

J. Brusca

Re-run

#29 JB



## RAW SEQUENCE LISTING

DATE: 12/02/2002

PATENT APPLICATION: US/09/709,905A

TIME: 11:19:18

Input Set : N:\paola\US09709905A.raw

Output Set: N:\CRF4\12022002\I709905A.raw

1 <110> APPLICANT: Kalyanaraman Ramnarayan  
 2 Edward T. Maggio  
 3 P. Patrick Hess  
 4 <120> TITLE OF INVENTION: Use of Computationally Derived Protein  
 5 Structures of Genetic Polymorphisms in Pharmacogenomics for  
 6 Drug Design and Clinical Applications  
 7 <130> FILE REFERENCE: 24737-1906C  
**C--> 8 <140> CURRENT APPLICATION NUMBER: US/09/709,905A**  
 9 <141> CURRENT FILING DATE: 2000-11-10  
 10 <150> PRIOR APPLICATION NUMBER: 09/438,566  
 11 <151> PRIOR FILING DATE: 1999-11-10  
 12 <150> PRIOR APPLICATION NUMBER: 24737-1906B  
 13 <151> PRIOR FILING DATE: 2000-11-01  
 14 <160> NUMBER OF SEQ ID NOS: 118  
 15 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 17 <210> SEQ ID NO: 1  
 18 <211> LENGTH: 6  
 19 <212> TYPE: PRT  
 20 <213> ORGANISM: Artificial Sequence  
 21 <220> FEATURE:  
 22 <223> OTHER INFORMATION: Modified Hepatitis C Virus NS3 Protease Inhibitor  
 23 Peptide  
**W--> 24 <221> NAME/KEY: ACETYLATION**  
 25 <222> LOCATION: 1  
**W--> 26 <221> MOD\_RES**  
 27 <222> LOCATION: 2  
 28 <223> OTHER INFORMATION: D-glutamic acid  
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 30 <222> LOCATION: 5  
 31 <223> OTHER INFORMATION: beta-cyclohexylalanine  
 32 <300> PUBLICATION INFORMATION:  
 33 <301> AUTHORS: Ingallinella, P., Altamura, S., Bianchi, E., Talia  
 34 <302> TITLE: Potent Peptide Inhibitors Of Human Hepatitis C Vir  
 35 <303> JOURNAL: Biochemistry  
 36 <304> VOLUME: 37  
 37 <305> ISSUE: 25  
 38 <306> PAGES: 8906-8914  
 39 <307> DATE: 1998-06-23  
**W--> 40 <400> 1**  
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 42 1 5  
 44 <210> SEQ ID NO: 2  
 45 <211> LENGTH: 6

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47 <213> ORGANISM: Artificial Sequence
48 <220> FEATURE:
49 <223> OTHER INFORMATION: Modified Hepatitis C Virus NS3 Protease Inhibitor
50 Peptide
W--> 51 <221> NAME/KEY: ACETYLATION
52 <222> LOCATION: 1
W--> 53 <221> MOD_RES
54 <222> LOCATION: 5
55 <223> OTHER INFORMATION: beta-cyclohexylalanine
56 <300> PUBLICATION INFORMATION:
57 <301> AUTHORS: Ingallinella, P., Altamura, S., Bianchi, E., Talia
58 <302> TITLE: Potent Peptide Inhibitors Of Human Hepatitis C Vir
59 <303> JOURNAL: Biochemistry
60 <304> VOLUME: 37
61 <305> ISSUE: 25
62 <306> PAGES: 8906-8914
63 <307> DATE: 1998-06-23
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W--> 65 Asp Glu Leu Ile Xaa Cys
66 1 5
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69 <211> LENGTH: 1045
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71 <213> ORGANISM: Human Immunodeficiency Virus (HIV)
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73 <221> NAME/KEY: CDS
74 <222> LOCATION: (1)...(297)
75 <223> OTHER INFORMATION: Protease
76 <221> NAME/KEY: CDS
77 <222> LOCATION: (298)...(1045)
78 <223> OTHER INFORMATION: Portion of Reverse Transcriptase
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82 1 5 10 15
83 ggc caa cta aaa gaa gct yta tta gat aca gga gca gat gat aca gta 96
W--> 84 Gly Gln Leu Lys Glu Ala Xaa Leu Asp Thr Gly Ala Asp Asp Thr Val
85 20 25 30
86 tta gaa gaa atg agt tta cca ggg aaa tgg aaa cca aaa atg ata ggg 144
87 Leu Glu Glu Met Ser Leu Pro Gly Lys Trp Lys Pro Lys Met Ile Gly
88 35 40 45
89 gga att gga ggt ttt atc aaa gta aga cag tat gat caa ata ctc ata 192
90 Gly Ile Gly Gly Phe Ile Lys Val Arg Gln Tyr Asp Gln Ile Leu Ile
91 50 55 60
92 gaa atc tgt gga cat aaa gct ata ggc aca gta tta gta gga cct aca 240
93 Glu Ile Cys Gly His Lys Ala Ile Gly Thr Val Leu Val Gly Pro Thr
94 65 70 75 80
95 cct gtc aac ata att gga aga aat ttg ttg act cag att ggt tgc act 288

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98	tta aat ttg ccc att agt cct att gaa act gta cca gta aaa tta aag	336
99	Leu Asn Leu Pro Ile Ser Pro Ile Glu Thr Val Pro Val Lys Leu Lys	
100	100 105 110	
101	cca gga atg gat ggc cca aaa gtt aaa caa tgg cca ttg aca gaa gaa	384
102	Pro Gly Met Asp Gly Pro Lys Val Lys Gln Trp Pro Leu Thr Glu Glu	
103	115 120 125	
104	aaa ata aaa gca tta gta gaa att tgt aca gaa atg gaa aag gaa gga	432
105	Lys Ile Lys Ala Leu Val Glu Ile Cys Thr Glu Met Glu Lys Glu Gly	
106	130 135 140	
107	aaa att tca aaa att ggg cct gag aat cca tac aat act cca ata ttt	480
108	Lys Ile Ser Lys Ile Gly Pro Glu Asn Pro Tyr Asn Thr Pro Ile Phe	
109	145 150 155 160	
110	gcc ata aag aaa aaa gac agt act aaa tgg aga aaa tta gta gat ttc	528
111	Ala Ile Lys Lys Lys Asp Ser Thr Lys Trp Arg Lys Leu Val Asp Phe	
112	165 170 175	
113	aga gaa ctt aat aag aga aca caa gac ttc tgg gaa gtt caa tta gga	576
114	Arg Glu Leu Asn Lys Arg Thr Gln Asp Phe Trp Glu Val Gln Leu Gly	
115	180 185 190	
116	ata cca cac ccc gca ggg tta aaa cag aaa aaa tca gta aca ata ctg	624
117	Ile Pro His Pro Ala Gly Leu Lys Gln Lys Lys Ser Val Thr Ile Leu	
118	195 200 205	
119	gat gtg ggt gat gca tat ttt tca gtt ccc tta gat gaa ggc ttc agg	672
120	Asp Val Gly Asp Ala Tyr Phe Ser Val Pro Leu Asp Glu Gly Phe Arg	
121	210 215 220	
122	aag tat act gca ttt acc ata cct agt aga aat aat gag aca cca ggg	720
123	Lys Tyr Thr Ala Phe Thr Ile Pro Ser Arg Asn Asn Glu Thr Pro Gly	
124	225 230 235 240	
125	att aga tat cag tac aac gtg ctc cca cag gga tgg aaa gga tca cca	768
126	Ile Arg Tyr Gln Tyr Asn Val Leu Pro Gln Gly Trp Lys Gly Ser Pro	
127	245 250 255	
128	gca ata ttt caa agt agc atg aca aga aty tta gag cct ttt aga aaa	816
W--> 129	<b>Ala Ile Phe Gln Ser Ser Met Thr Arg Xaa Leu Glu Pro Phe Arg Lys</b>	
130	260 265 270	
131	caa aat cca gaa ata gtt atc tat caa tac atg gat gat ttg tat gta	864
132	Gln Asn Pro Glu Ile Val Ile Tyr Gln Tyr Met Asp Asp Leu Tyr Val	
133	275 280 285	
134	gga tct gac tta gaa ata gga cag cat aga gca aaa ata gag gaa ctg	912
135	Gly Ser Asp Leu Glu Ile Gly Gln His Arg Ala Lys Ile Glu Glu Leu	
136	290 295 300	
137	aga gga cat cta tta aag tgg gga ttt acc aca cca gac aaa aaa cat	960
138	Arg Gly His Leu Leu Lys Trp Gly Phe Thr Thr Pro Asp Lys Lys His	
139	305 310 315 320	
140	cag aaa gaa cct cca ttt ctt tgg atg ggt tat gaa ctc cat cct gat	1008
141	Gln Lys Glu Pro Pro Phe Leu Trp Met Gly Tyr Glu Leu His Pro Asp	
142	325 330 335	
143	aaa tgg aca gta cag cct ata aag ttg cca gaa aaa g	1045
144	Lys Trp Thr Val Gln Pro Ile Lys Leu Pro Glu Lys	

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TIME: 11:19:18

Input Set : N:\paola\US09709905A.raw

Output Set: N:\CRF4\12022002\I709905A.raw

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145                               340                               345
147 <210> SEQ ID NO: 4
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149 <212> TYPE: DNA
150 <213> ORGANISM: Human Immunodeficiency Virus (HIV)
151 <220> FEATURE:
152 <221> NAME/KEY: CDS
153 <222> LOCATION: (1)...(297)
154 <223> OTHER INFORMATION: HIV Protease
155 <221> NAME/KEY: CDS
156 <222> LOCATION: (298)...(1046)
157 <223> OTHER INFORMATION: Portion of HIV Reverse Transcriptase
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159      cct cag atc act ctt tgg caa cga ccc ctt gtc aca ata aag ata gga      48
160      Pro Gln Ile Thr Leu Trp Gln Arg Pro Leu Val Thr Ile Lys Ile Gly
161      1                               5                               10                               15
162      ggg cag cta aag gaa gct cta tta gat aca gga gca gat gat aca gta      96
163      Gly Gln Leu Lys Glu Ala Leu Leu Asp Thr Gly Ala Asp Asp Thr Val
164      20                               25                               30
165      gtt gaa gaa atg aat ttg cca gga aaa tgg aaa cca aaa atg ata ggg      144
166      Val Glu Glu Met Asn Leu Pro Gly Lys Trp Lys Pro Lys Met Ile Gly
167      35                               40                               45
168      gga att gga ggt ttt atc aaa gta aga cag tat gag caa ata gcc gta      192
169      Gly Ile Gly Gly Phe Ile Lys Val Arg Gln Tyr Glu Gln Ile Ala Val
170      50                               55                               60
171      gaa aty tgt gga cat aga gct atg ggt aca gta tta gta gga cct aca      240
W--> 172      Glu Xaa Cys Gly His Arg Ala Met Gly Thr Val Leu Val Gly Pro Thr
173      65                               70                               75                               80
174      cct gtc aac ata att gga aga aat ctg ttg act cag att ggt tgc act      288
175      Pro Val Asn Ile Ile Gly Arg Asn Leu Leu Thr Gln Ile Gly Cys Thr
176      85                               90                               95
177      tta aat ttt ccc att agt cct att gaa act gta cca gta aaa tta aag      336
178      Leu Asn Phe Pro Ile Ser Pro Ile Glu Thr Val Pro Val Lys Leu Lys
179      100                              105                              110
180      cca gga atg gat ggc cca aaa gtt aaa caa tgg cca ttg aca gaa gaa      384
181      Pro Gly Met Asp Gly Pro Lys Val Lys Gln Trp Pro Leu Thr Glu Glu
182      115                              120                              125
183      aaa ata aaa gca tta gta gaa atc tgt aca gaa ttg gaa aag gaa ggg      432
184      Lys Ile Lys Ala Leu Val Glu Ile Cys Thr Glu Leu Glu Lys Glu Gly
185      130                              135                              140
186      aaa att tca aaa att ggg cct gaa aat cca tac aat act cca gta ttt      480
187      Lys Ile Ser Lys Ile Gly Pro Glu Asn Pro Tyr Asn Thr Pro Val Phe
188      145                              150                              155                              160
189      gcc ata aag aaa aag aac agt act aaa tgg aga aaa tta gta gat ttc      528
190      Ala Ile Lys Lys Lys Asn Ser Thr Lys Trp Arg Lys Leu Val Asp Phe
191      165                              170                              175
192      aga gaa ctt aat aag aga act caa gac ttc tgg gag gtt caa tta gga      576
193      Arg Glu Leu Asn Lys Arg Thr Gln Asp Phe Trp Glu Val Gln Leu Gly
194      180                              185                              190

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Output Set: N:\CRF4\12022002\I709905A.raw

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195   ata cca cat cca gca ggg tta aaa aag aat aaa tca ata aca gta ctg      624
196   Ile Pro His Pro Ala Gly Leu Lys Lys Asn Lys Ser Ile Thr Val Leu
197           195                      200                      205
198   gat gtg ggt gat gca tat ttt tca gtt ccc tta tgt gaa gac ttc agg      672
199   Asp Val Gly Asp Ala Tyr Phe Ser Val Pro Leu Cys Glu Asp Phe Arg
200           210                      215                      220
201   aag tat act gca ttt acc ata cct agt gta aac aat gag act cca ggg      720
202   Lys Tyr Thr Ala Phe Thr Ile Pro Ser Val Asn Asn Glu Thr Pro Gly
203           225                      230                      235                      240
204   att aga tat cag tac aat gtg ctt cca cag gga tgg aaa gga ttc acc      768
205   Ile Arg Tyr Gln Tyr Asn Val Leu Pro Gln Gly Trp Lys Gly Phe Thr
206           245                      250                      255
207   agc ata ttc caa tgt agc atg aca aaa atc tta gag cct ttt aga aaa      816
208   Ser Ile Phe Gln Cys Ser Met Thr Lys Ile Leu Glu Pro Phe Arg Lys
209           260                      265                      270
210   caa aat cca gag ata gtt atc tat caa tac atg gat gat ttg tat gta      864
211   Gln Asn Pro Glu Ile Val Ile Tyr Gln Tyr Met Asp Asp Leu Tyr Val
212           275                      280                      285
213   gga tct gac tta gaa ata ggg cag cat aga gca aaa ata gag gaa ctg      912
214   Gly Ser Asp Leu Glu Ile Gly Gln His Arg Ala Lys Ile Glu Glu Leu
215           290                      295                      300
216   aga caa tat ctg tgg aag tgg gga ttt tgc aca cca gaa caa aar cat      960
217   Arg Gln Tyr Leu Trp Lys Trp Gly Phe Cys Thr Pro Glu Gln Lys His
218           305                      310                      315                      320
219   cag aaa gaa cct cct ttc ctt tgg atg ggt tat gaa ctc cat ccc gat      1008
220   Gln Lys Glu Pro Pro Phe Leu Trp Met Gly Tyr Glu Leu His Pro Asp
221           325                      330                      335
222   aaa tgg aca gta caa cct ata gtg ctg cca gac aaa ga      1046
223   Lys Trp Thr Val Gln Pro Ile Val Leu Pro Asp Lys
224           340                      345
226 <210> SEQ ID NO: 5
227 <211> LENGTH: 1104
228 <212> TYPE: DNA
229 <213> ORGANISM: Human Immunodeficiency Virus (HIV)
230 <220> FEATURE:
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232 <222> LOCATION: (1)...(297)
233 <223> OTHER INFORMATION: HIV Protease
234 <221> NAME/KEY: CDS
235 <222> LOCATION: (298)...(1104)
236 <223> OTHER INFORMATION: Portion of HIV Reverse Transcriptase
W--> 237 <400> 5
238   cct cag atc act ctt tgg caa cga ccc atc gtc aca ata aag rta ggg      48
W--> 239   Pro Gln Ile Thr Leu Trp Gln Arg Pro Ile Val Thr Ile Lys Xaa Gly
240           1                      5                      10                      15
241   ggg caa cta agg gaa gct cta tta gat aca gga gca gat gat aca ata      96
242   Gly Gln Leu Arg Glu Ala Leu Leu Asp Thr Gly Ala Asp Asp Thr Ile
243           20                      25                      30
244   ata gaa gac ata act ttg cca gga aga tgg aca cca aaa atg ata ggg      144

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**RAW SEQUENCE LISTING ERROR SUMMARY**  
PATENT APPLICATION: US/09/709,905ADATE: 12/02/2002  
TIME: 11:19:19Input Set : N:\paola\US09709905A.raw  
Output Set: N:\CRF4\12022002\I709905A.raw**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 2,5  
Seq#:2; Xaa Pos. 5  
Seq#:3; Xaa Pos. 10,23,266  
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Seq#:26; Xaa Pos. 140,166,310,325,327,341  
Seq#:27; Xaa Pos. 140,309,324,326,340  
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## RAW SEQUENCE LISTING ERROR SUMMARY

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Input Set : N:\paola\US09709905A.raw

Output Set: N:\CRF4\12022002\I709905A.raw

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Seq#:41; N Pos. 820,821,822,823,824,825,826,827,828,829,830,831,832,833,834  
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TIME: 11:19:19Input Set : N:\paola\US09709905A.raw  
Output Set: N:\CRF4\12022002\I709905A.raw

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Seq#:109; N Pos. 668,669,670,671,672,673,674,675,676,677,678,679,680,681  
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Seq#:109; Xaa Pos. 23,34,51,57,61,63,220,223,224,225,226,227,228,229,230  
Seq#:109; Xaa Pos. 231,232,233,234,235,236,237,238,239,240,241,242,243,244  
Seq#:109; Xaa Pos. 245,246,247,248,283,287,330  
Seq#:110; Xaa Pos. 1,10,36,40,45,230,274,278,295,349  
Seq#:111; Xaa Pos. 57,60,66,68,277,309  
Seq#:112; Xaa Pos. 46,140,171,238,313,314,323,334,363  
Seq#:113; Xaa Pos. 126,143,144,145,149,152,153,261  
Seq#:114; N Pos. 35,39,40,171  
Seq#:114; Xaa Pos. 1,3,4,8,12,13,14,15,31,37,57,78,230,276,281,283,350,352  
Seq#:114; Xaa Pos. 353  
Seq#:115; Xaa Pos. 62,74,75,78  
Seq#:116; Xaa Pos. 78  
Seq#:117; Xaa Pos. 371



## VERIFICATION SUMMARY

DATE: 12/02/2002

PATENT APPLICATION: US/09/709,905A

TIME: 11:19:19

Input Set : N:\paola\US09709905A.raw

Output Set: N:\CRF4\12022002\I709905A.raw

L:8 M:270 C: Current Application Number differs, Wrong Format  
L:24 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:26 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:29 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:40 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:41 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:51 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:53 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2  
L:64 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2  
L:65 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:79 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3  
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:48  
L:84 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:96  
L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:816  
L:158 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4  
L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:240  
L:237 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:5  
L:239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:48  
L:251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:240  
L:263 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:432  
L:319 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:6  
L:404 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7  
L:411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:96  
L:412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:144  
L:418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:240  
L:489 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8  
L:491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:48  
L:494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:96  
L:574 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9  
L:576 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:48  
L:591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:288  
L:630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:912  
L:636 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:1008  
L:659 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:10  
L:664 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:96  
L:667 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:144  
L:706 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:768  
L:712 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:864  
L:744 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11  
L:746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:48  
L:749 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:96  
L:764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:336  
L:800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:912  
L:829 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12  
L:885 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:912  
L:914 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13  
L:916 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:48  
L:919 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:96

## VERIFICATION SUMMARY

DATE: 12/02/2002

PATENT APPLICATION: US/09/709,905A

TIME: 11:19:19

Input Set : N:\paola\US09709905A.raw

Output Set: N:\CRF4\12022002\I709905A.raw

L:952 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:624  
L:967 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:864  
L:999 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14  
L:1049 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:816  
L:1055 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:912  
L:1058 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:960  
L:1084 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15  
L:1092 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:144  
L:1095 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:192  
L:1134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:816  
L:1146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:1008  
L:1152 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:1104  
L:1169 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16  
L:1195 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:432  
L:1225 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:912  
L:1254 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:17  
L:1256 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:48  
L:1265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:192  
L:1298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:720  
L:1301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:768  
L:1313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:960  
L:1316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:1008  
L:1324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:1104  
L:1339 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:18  
L:1350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:192  
L:1377 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:624  
L:1424 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:19  
L:1509 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:20  
L:1594 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:21  
L:1679 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:22  
L:1764 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:23  
L:1849 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:24  
L:1934 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:25  
L:2019 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:26  
L:2102 M:351 W: Sequence data Name/Key Feature Out-of-Range, SEQ ID#:27, CDS LOCATION:  
(298)...(1116)  
L:2104 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:27  
L:2189 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:28  
L:2274 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:29  
L:2359 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:30  
L:2444 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:31  
L:2529 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:32  
L:2614 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:33  
L:2699 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:34  
L:2784 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:35  
L:2868 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:36  
L:2953 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:37  
L:3038 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:38  
L:3123 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:39  
L:3208 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:40

**VERIFICATION SUMMARY**PATENT APPLICATION: **US/09/709,905A**

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Input Set : **N:\paola\US09709905A.raw**Output Set: **N:\CRF4\12022002\I709905A.raw**

L:3293 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:41  
L:3374 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:42  
L:3453 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:43  
L:3535 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:44  
L:3620 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:45  
L:3705 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:46  
L:3790 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:47